Chapter–VI

CASE STUDIES
6.1 Overview

Urbanization has brought transformation of traditional rural economies where primary economic activities dominate the modern industrial society of secondary and tertiary economic activities. The sequential changes in social system led to the change in economic activities. Social system includes culture, religion, need for food, housing, recreation and traditional factors have the direct impact on economic activities. The growth in the number and variety of economic activities led to significant economic development resulting into restructuring of the economy and investments in social overhead capitals. These activities act as the driving forces for rapid changes in material and immaterial phenomenon. The material phenomenal changes include the changes in land use/land cover and the immaterial changes includes the socio-economic changes.

The technological advancement brought up a new social system where the activity depends on mass production, consumption and disposal of natural resources. Increasing human population and their use of resources have transformed the terrestrial biosphere into anthropogenic biomes. Urban areas began to be characterized by the new economic structure and landscape. There is rapid increase in demand by the migrant and resident population for land for built-up spaces e.g., houses, shops, commercial areas, public offices, factories, hotels and restaurants, recreational activity centers, play grounds etc. The growing demand from migrants is bringing about financial resources, but also increases pressure and competition for land because of the limited nature of land. Thus the increasing gap between the demands for supply of land supported by the speculative nature in the land market has resulted in the increase of land values.

Therefore, evaluation of the causes and the consequences of changes in land use and land cover is becoming an urgent need for the researchers because the increasing population is putting pressure on the available resources (Turner et al. 1993). Such evaluation is concerned with uncovering the causes behind social and economic issues, rather than merely focusing on the symptoms (Robbins, 2004). Keeping this in view, few key wards were identified for in-depth analysis. These case studies focused to understand the respondent’s activities which influence the transformations in land use/land cover of the Srinagar city. In these case studies the focus is on human response to the different social, economic and cultural situations.
The study was based on primary sources. The main objective of the sample survey was to find out the process of land transformation at micro level that too among different socio-economic groups of the Srinagar city. The data was collected based on well structured questionnaires. Stratified random sampling of around 2 percent of the total households was used. Sampling was done on random basis with the help of available municipal ward map (Figure 6.1). The interviews included total number of 380 respondents. These interviews were held at six micro level sites (Lal Chowk ward, Aalochi Bagh ward, Bemina ward, Soura ward, Chanpora ward and the Hanji localities of Dal Lake area). The aim of survey was to find out the specific socio-economic characteristics and the activities carried out by different people responsible for land transformations. Further the questionnaires included the queries of the issues related with land transformation. The detailed explanation of these case studies is as follows:-

6.2 Case study sites:

From the study area six sample sites were identified representing different social, economic and cultural background. These sample sites represent the social economic and cultural characteristics of the whole of the city.

(i) Lal Chowk ward: Located in the city center. This ward has been selected for the study because it represents the CBD of the city. This locality is the centre for trade and commerce not only for Srinagar city but also for whole of the valley. People from various parts of the city and valley come to this place for exchange of the goods and services. It is oldest part of the city and the seat of political activities.

(ii) Aalochi Bagh ward: Located adjacent to Lal Chowk ward in the core area of the city. This ward has been selected for the study because it has mixed land use with residential being dominating but due to proximity to Lal Chowk, it has the presence of commercial land use also.

(iii) Bemina ward: Located in the west of the city. It is the newly developed area where in the recent past lot of land transformation has taken place. There is vast
Figure 6.1

LOCATION OF CASE STUDY SITES

MAIN ROADS
MUNICIPAL BOUNDARY
MUNICIPAL WARDS
1 LAL CHOWK WARD
2 AALOCHI BAGH WARD
3 BEMINA WARD
4 SOURA WARD
5 CHANPORA WARD
6 HANJI LOCALITIES
low lying agricultural and marshy area, therefore, the city is expanding rapidly towards this area.

(iv) Soura ward: Located in the north of the city. Despite its far away location from the city center this area has rapidly developed during the past few decades. Significant migration from older part of the city to this area has been observed.

(v) Chanapora ward: Located in the south of the city. This ward is also newly developed part. The urban authorities have provided good infrastructure in this area resulting in-migration of population. The migration is from city centre as well as neighbouring districts. Significantly this area is prone to floods and water logging and this is an important issue related with development.

(vi) Hanji localities: Located in the western part of the Dal Lake (Figure 6.2). These localities have been selected for the study because they are located in the vicinity of Dal Lake. The study aimed to assess the impact of growing number of Hanji population on their localities and as well as on the lake area. These case studies have been carried out in a common frame focusing on its demographic characteristics, existing land use and land transformation characteristics and the important issues related with land transformations. The detailed explanation of these wards is given below:

6.2.1 LAL CHOWK WARD

Lal Chowk represents ward number 4, of the total 68 wards of Srinagar city. It is an elevated area in the central part of the city. It is located on the east bank of river Jhelum. Lal Chowk is named after the central market place ‘Red Square’ of Moscow’s but it is not as extensive as the Red Square.

The area is characterized by narrow lanes and by-lanes, converging at Ghanta Ghar (Clock Tower). These narrow lanes are dotted with shops and street vendors. The important market places in Lal Chowk are, Maisuma, Kokar bazaar, Polo view, Residency road, Sheikh Bagh, Court road, Dubji, Bagh-i-Sikandar, Abi Guzar, and Abi Guzar Ghat etc. Lal Chowk acts as a Central Business District (CBD) of the Srinagar city holding important government and business establishments.
(a) Demographic Profile of Lal Chowk Ward:

In the year 1951, the total population of Lal Chowk ward was 7520 which increased to 11166 persons (provisional) in 2011 (Census, 2011). Most of the residents are the original population of this place, who have been living here since decades.

This ward is dominated by the economically well off people who are mostly associated with tertiary economic activities. Most of them own business establishments in various shopping malls and complexes. Some have their own commercial buildings which they transformed from their residential spaces.

The recent economic transformations in tourism industry have resulted into large scale transformation in economic activities of the residents of this ward. These people were originally traders and had space for business establishments; therefore, they utilized the available space and developed arts and crafts for tourist industry. This way they made good sums of money from the tourism industry.

Apart from this, the resident government employes who are not economically as well off as the business class, rent part or entire residential space to the shopkeepers and entrepreneurs for shops. The land rent is very high so these residents get benefit of this locational advantage. These activities have changed the character of Lal Chowk area. This heritage part which was traditional and sleepy few years back now appears dynamic and bustling with activities.

Table 6.1: Important Features of Lal Chowk Ward

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>TOT_POP</th>
<th>TOT_AREA (in Ha)</th>
<th>TOT_RES (in Ha)</th>
<th>RES DENSITY (per Ha)</th>
<th>POPULATION CONCENTRATION INDEX</th>
<th>RES FLOOR SPACE (Per head)</th>
<th>GROSS RES SPACE</th>
<th>GROSS DENSITY of Dwelling units</th>
<th>STREET CONNECTIVITY INDEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAL CHOWK</td>
<td>11166</td>
<td>207</td>
<td>14</td>
<td>797</td>
<td>1.9</td>
<td>49</td>
<td>78</td>
<td>43.6</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Based on field survey, 2009-10.

Lal Chowk is dominated by residential and commercial land use. It is densely populated ward with more than 11000 residents residing on only 14 hectares of land. Table 6.1 shows that this ward has the residential density of 797 persons per hectare with the population concentration index of 1.9. Presently there is limited scope for the horizontal expansion in Lal Chowk ward due to non availability of
land area. Therefore, old residential houses are being converted into concrete multi-storied commercial buildings.

(b) Land Use/Land Cover of Lal Chowk Ward:
The total area of Lal Chowk ward is 207 hectares. In the year 1971 the total area under built-up was 171 hectares which increased to 185 hectares in the year 2008 (8.18 percent increase). The total area under non built-up classes decreased from 36 hectares to 22 hectares.

Since this ward is the CBD of the city, therefore commercial land use occupies maximum area of the ward and it is spread over 43 hectares. Lal Chowk has attained the status of principal ward with respect to trade and commerce. It is attracting growth of commercial activities. During the study period it has increased by 10.5 hectares capturing land from residential (4 hectares) and vacant (5.5 hectares).

Another land use class where transformation took place was vacant land where almost all available vacant land (11 hectares in 1971 to 0.5 hectares in 2008) was utilized. The other land use classes i.e., residential, parks and gardens, plantation and water bodies have remained more or less unchanged.

The area under built-up class has increased because it represents the CBD of the city where people and government agencies are inclined toward the construction of shopping malls and complexes. All the vacant land was utilized by the entrepreneurs and businessmen on paying high prices to the government and property dealers for making money through business activities.

Government agencies brought land transformations through the implementation of land use proposals which are proposed in the master plan. On the other hand parks/gardens and playgrounds were further beautified for preserving the aesthetic look of the city center.

However during the study period not much land transformations have taken place, which is because of being the developed area. There was not much scope left for the large scale land transformation because of non availability of land area. The demand for commercial land is high but there is no land available. Therefore residents are converting their residential space for commercial activities.
Besides small land holding, the multiple ownership of the single ancestral property is acting as the hurdle while the property is set for sale. It becomes difficult for a buyer to purchase the property. Some of the owners are willing to sell their holding for running a business or for purchasing the land in the outskirts of the city while some emotionally attached to their ancestral place refuse to sell their share. Since the land value is high in this ward therefore, property dealers play their role by satisfying all the stake holders but charge high commission from both the sellers and the purchasers. Also it was found that entrepreneurs for their monetary benefits get involved with the property dealers in breaking the deadlock of multiple-ownership. Both the property dealers and the entrepreneurs engage the multiple owners in a business deal and then succeed in acquiring the land for raising the shopping malls.

In many cases it was found that few owners of the same property shifted their residence to the outer areas of the city on open spaces leaving their share behind. These people do not allow the property dealers to interfere in transaction deal and wait for the time when all the owners of the property are willing for its sale. Government agencies are facing difficulty in acquiring the land from residents for the widening of the roads, hence the lanes and streets are narrow. Multiple ownership of property is one of the reasons of Lal Chowk CBD having the old look.

Another peculiar characteristic of the land use of Lal Chowk ward is that residential and commercial land use has intermingled causing traffic congestion. The inadequate road widths do not allow the proper functioning of activities in this area. Collectively all the problems arising out of this phenomenon, has begun to emerge which are successively reducing the functional efficiency of this trading center, hampering economic development.

(c) Actors of Land Transformation in Lal Chowk Ward:
Entrepreneurs and residents were found as the prominent actors playing an important role in the land transformation in this ward.

Entrepreneurs played direct role, who are inclined towards business establishments merely for economic gains. They transformed the available vacant land into built-up land use. People visit this place from different parts of valley for selling and purchasing of goods and services and offer attractive rent to their land lords.
Property dealers acted indirectly by involving themselves in breaking the deadlock of multiple ownership of property in receipt of commission both from the seller as well as from the purchaser. That property is mostly utilized for commercial development of the area.

Residents also have a role in land transformation. They offer their property for rent to get income benefits as there is higher demand while the land availability is limited. However, it was also observed that some residents moved from this place to the other open areas of the city. These people have rented their property. This is also a kind of speculative property where the owners are holding it for an increase in its value.

The role of government agencies was found to be insignificant because of being primarily the business centre where entrepreneurs and residents have a better role to play.

(d) Issues of Land Transformation in Lal Chowk Ward:

(i) **High land value:** The increasing demand and competition for commercial activities and involvement of the property dealers in the selling and purchasing of the property led to an increase in land prices. Also, it was observed that the property prices were more dictated by the residents in case when he knows that the purchaser is financially sound.

(ii) **Residential congestion:** Lal Chowk has only 14 hectares of residential land area for its 11166 residents. Transformation of vacant land for commercial and infrastructural development in the residential areas has led to residential congestion. The streets became congested. Not only are the houses built very close to the roads, but commercial encroachments are inevitable leading to further congestion in residential areas.

(iii) **Traffic congestion:** Vehicular traffic has increased with the increasing number of people and increase in commercial establishments. Lack of planning and inadequate parking space aggravates the problem.
Photo Plate 27: Residential Congestion in Lal Chowk Ward

Photo Plate 28: Traffic Congestion in Lal Chowk Ward
6.2.2 **AALOCHI BAGH WARD**

Aalochi Bagh represents ward number 16 of Srinagar city. It is a low lying area, on the west bank of the river *Jhelum*, adjacent to Lal Chowk ward. Aalochi Bagh has got its name from the ‘Berry’ fruit which is locally called as ‘Aalochi’ and ‘Bagh’ locally means ‘an orchard’. The name of this ward itself explains its land use in the past.

This ward lies along the busy corridors of the city core area. The important localities in this ward are Sarai Bala, Sarai Payein, Magarmal Bagh, Haft chinar, Solina, Solina Bala, and Solina Payein etc. Mostly the residents of this ward are the migrated people from various parts of the city.

**(a) Demographic Profile of Aalochi Bagh Ward:**

In the year 1951 the total population of this ward was 10744 persons. As per 2011 census this ward has the total population of 33304 persons (provisional) (Census, 2011).

Aalochi Bagh ward is dominated by the moderately rich people. These people are engaged in various government offices and few carry out some business related activities e.g., retail and wholesale trade of readymade garments, daily needs, electronics etc. This ward also accommodates some economically well off people who work as administrative departments in various government offices in the city centre. During the field survey it was also found that there are few families of sweeper community also who are economically backward people of this ward. These residents have now shifted from their traditional occupation utilizing their residential space for some menial business activities like retail shopkeepers e.g., vegetable, footwear and daily need shops etc.

In general, residents were found to be economically stable but socially they are weak, because they have come from different places of the city and outside, leading to impersonal social relations in the community.

The peculiar demographic characteristic of this area is that people from every religion are found in this ward. Besides the Muslim majority, there are good number of Sikhs and Christians also. Almost all the Sikh population is the migrant population belonging to various rural areas of the valley. These people are economically good working in various government departments of the city.
Aalochi Bagh Ward has both residential as well as commercial area but residential area dominating land use, therefore it has high population density with 1280 persons living per hectare of residential land area (Table 6.2). The main reason behind the high population density is its nearness to the city centre and importantly this ward has three times more population and three times less area than Lal Chowk CBD ward. Thus highest population concentration index of the city of 2.7 was observed in this area. However, the increasing commercial land use in this ward has limited the scope for increase in area under residential building. Therefore the area has 38 sq feet of per head residential floor space which is even lower than the Lal Chowk CBD ward. Despite increasing commercial area, this ward has high gross density of 37.2 dwelling units per acre of residential land area.

(b) Land Use/Land Cover of Aalochi Bagh Ward:

The total area under built-up land in the year 1971 was 52 hectares which increased to 83 hectares in 2008 (i.e., 59.6 percent increase). Non built-up has decreased from 38 hectares to 7 hectares (i.e., 81.5 percent decrease).

This ward is important for being mostly residential area in the city core, therefore the residential area has increased from 13.5 hectares in the year 1971 to 20.5 hectares in 2008, gaining land from agriculture (8 hectares) and vacant (6 hectares). Its nearness to the city center has created higher demand for residential land as well as commercial land.

Besides residential importance, higher demand for commercial land was observed in Saraibala, Magarmal Bagh, Solina localities in this ward as they are influenced by the adjoining Lal Chowk CBD. These areas have mixed character of residential and commercial land use. People have transformed their residential and

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</tr>
</thead>
<tbody>
<tr>
<td>AALOCHI BAGH</td>
<td>33304</td>
<td>90</td>
<td>26</td>
<td>1280</td>
<td>2.7</td>
<td>38</td>
<td>98</td>
<td>37.2</td>
<td>1.7</td>
</tr>
</tbody>
</table>

Source: Based on field survey, 2009-10.
space into shops and commercial outlets. Henceforth 21.5 hectares of area is under commercial land use capturing land from agriculture (4 hectares) and residential (6 hectares).

Another significant transformation was observed in vacant (13 hectares) and agricultural land (9 hectares) losing its area completely for residential and commercial development.

The land transformation in Aalochi Bagh also has imprints of social unrest which shaped its land use. This ward had people from different religions especially Muslim, Pandit (Local name for Kashmiri Hindu people) and Sikh. These people were dominated in Sarai Bala, Magarmal Bagh and Solina localities of this ward. Due to political instability almost all the Pandits shifted to other places. Few disbursed their assets to Muslims while as most of them took help from the property dealers for the sale of their residential and commercial spaces. So, economically well off people got attracted from various parts of the city to purchase such property and settle here or kept it as speculative asset. Migrants got a chance to live near the city centre at the affordable rates. These old structures were later used for residential, business or commercial purposes by the people who purchased these assets.

During this political instability some of these assets were occupied by the defence personals as their accommodation, which hampered the growth of commercial activities. There are still various security establishments in the commercial as well as residential areas, due to which many residents sold their houses to the new settlers and started moving to the other parts of the city.

The influence of economic development in the city centre adjoining this ward led to unplanned commercial development which undermined the residential character of this area. Non commercial area has been significantly transformed into one of the important commercial places of the city. With the span of time the residential and commercial overcrowding motivated economically well off people to shift to the outer areas of the city.
(c) **Actors of Land Transformation in Aalochi Bagh Ward:**
There are two important actors which acted directly or indirectly in the process of land transformation in Aalochi Bagh ward; they are the residents/new settlers and farmers/land owners.

Residents and the new settlers acted directly by transforming the available vacant, agriculture and orchard land for residential purposes because of increasing family size, increasing trend for nuclear family, also the increasing pressure from immigrants. This ward has got higher demand for residential as well as commercial land because of its nearness to the city centre. New settlers used the land for residential purposes where as the original residents transformed the residential houses into commercial buildings because of shortage of land and offered it to the entrepreneurs in exchange of high rates of returns through rents. Sarai Bala is an outstanding example where nearly most of residential houses have been rented by the residents for commercial use. These residents are mostly government employees who increase their income through proper utilization of their surplus residential space. This led to significant transformation of residential to commercial land use resulting into increase in commercial land use.

Farmers/land owner acted indirectly in land transformation by willingly selling out their land to the new settlers and residents for getting instant money due to the growing demand of land for commercial and residential development. This led to agriculture to residential & agriculture to commercial land transformations. These activities resulted into complete removal of fertile agriculture and plantation/orchard land.

(d) **Issues of Land Transformation in Aalochi Bagh Ward:**

(i) **High land value:** The increasing population led to the decrease in per capita land availability. Besides it the other important factor behind the increase in land value and real estate is the overall economic development, nearness to the city centre, rise in income level of the household, scarcity of land speculation among the economically well off people and employment opportunities for the growing generations in the city centre.

(ii) **Social Problem:** Aalochi Bagh holds people from many religions. It has shaped the land use differently. The left over Pandit property in this ward has turned to be a
matter of conflict between different religious sects from time to time. Some economically weak people from the ward and also from outside tried to illegally capture this property.

6.2.3 **BEMINA WARD**
Bemina represents ward number 21 and 22 i.e., Bemina East and Bemina West respectively of the Srinagar city. The old name of Bemina was *Judea* which was the name of the mountainous part of the historic Land of Israel. Later when the Muslim came, they changed the name to “Bemina”. It is a low lying area lying in the west of the city at a distance of about 6-7 kilometers from city centre.

This was un-inhabitable area having weak road accessibility till recent decades. In the year 1970, a bypass road was laid which made the area better connected. Some of the important places in this ward are Qamarabad colony, Hilal colony, Arampora, Gousia colony, S.D.A colony, Abu Bakr colony, Sher-i-Kashmir colony, Police colony, Hamza colony, Bilal colony, Boatman colony, Ibrahim colony, Shah-i-Hamadan colony, Usmania colony, Firdous colony etc.

(a) **Demographic Profile of Bemina Ward:**
In the year 1951 total population of Bemina was 12043 persons and in 2011 it was 40644 persons (provisional) (Census, 2011). Mostly, the residents of Bemina are migrated people who came from the various parts of the city and the neighbouring districts, especially from Baramulla in the northwest.

This ward is dominated by the middle class people who are engaged in various government services and business related activities. At the time of the development of this area, government sold land only to the economically middle standard government employs; therefore their percentage is higher here. Some percentage of higher class people is also found among whom some are working in various government administrative offices and others work as entrepreneurs. These entrepreneurs have their business establishments in and around the city centre.

This ward also accommodates few lower residents also which include the boatmen (*Hanjis*) living in *Boatmen Colony*. These are the backward people of this area. They have been relocated from Dal Lake and river *Jhelum* for filling the loss incurred by them to these water bodies. These residents churn out their modest
income from street vending in and around the city centre. They are also engaged in local transportation services.

### Table 6.3: Important Features of Bemina Ward

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>TOT_POP</th>
<th>TOT_AREA (in Ha)</th>
<th>TOT_RES (in Ha)</th>
<th>RES DENSITY (per Ha)</th>
<th>POPULATION CONCENTRATION INDEX</th>
<th>RES FLOOR SPACE (Per head)</th>
<th>GROSS RES SPACE</th>
<th>GROSS DENSITY of Dwelling units</th>
<th>STREET CONNECTIVITY INDEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEMINA</td>
<td>40644</td>
<td>741</td>
<td>139</td>
<td>292</td>
<td>0.6</td>
<td>98</td>
<td>186</td>
<td>25</td>
<td>0.6</td>
</tr>
</tbody>
</table>

Source: Based on field survey, 2009-10.

Bemina is the newly developed area which is away from the core area of the city. Therefore it has low population density of 292 persons per hectares of residential area with population concentration index of 0.6 (Table 6.3). However, in the near future this area will also experience the high population concentration index because the rapidly developing of commercial, residential and governmental land use.

Mostly, houses are built in a planned way with open spaces in front, except in the slum dwellings. Therefore the gross density of only 25 dwelling units per acre of residential land area was observed. Still there is the vast area left for the residential development and there is the availability of 98 sq feet of per head residential floor space which is highest in the city.

However, Bemina has limited road network because of its newly development. There are some areas in the interior of this ward which are devoid of proper road connectivity. Thus street connectivity index of 1.7 was observed here.

#### (b) Land Use/Land Cover of Bemina Ward:

Bemina ward is having a vast area covering the total area of 741 hectares. This area of Srinagar city has experienced large scale land transformations during the study period. Its built-up area has increased by 213 hectares at the cost of non built-up area which decreased by the similar proportion. This increase is attributed to the high demand of land for built-up purposes and also government’s initiative in developing this area and assuring the requisite infrastructure.

Although this ward is the newly developed area where people from various parts have settled, transforming the fertile agricultural land into residential spaces,
but still agricultural area covers the maximum area, which is spread over 366 hectares. It has lost its area to residential (136 hectares), plantation/orchards (27.5 hectares), vacant land (45.5 hectares), Educational and Governmental (19 hectares) land use classes. This vast agricultural area gave the impetus to the people to purchase land and settle. Therefore residential area covers 139 hectares of land area capturing mainly from agriculture (136 hectares). Mostly the land belonged to the government which was also used by the new settlers for various residential and agricultural activities. However, these agricultural people were not the owners of that land but were the tillers who did not had property rights on that land. Later, State Legislative Assembly passed the Jammu and Kashmir State Lands Act (Vesting of ownership to the occupants) in the year 2001 and was implemented in the year 2007. This act gave free of cost ownership rights to 16.60 lakh kanals of State land under the occupation of farmers in the state, which also benefited the farmers of Bemina area. Due to higher demand for land these farmers sold this owned land to the residents, new settlers and government agencies. At few places it was found that government agencies took the land from the farmers either by force or at low monetary exchange.

Besides agricultural land Bemina was known for its wide spread marshy areas which decreased from 231 hectares to 17 hectares losing its area to agriculture (157 hectares), Educational and Governmental buildings (47 hectares), plantation/orchards (5 hectares), residential (3 hectares) etc. The large scale migration of people to this area led to some peculiar land transformation in this ward in the form of creation of new land use classes like plantation and vacant land; firstly, because the residents and the economically well off people from the city core purchased the agricultural as well as marshy land and kept is as speculative property. Few among them left that land unattended whereas others put plantation in it for economic benefits. Secondly, due to the fear of floods, farmers left their field unattended and later sold it at the appropriate time at good economic exchange.

Another significant change was observed in the governmental and educational land use classes which increased from 45 hectares in the year 1971 to 119 hectares in 2008, capturing land mostly from agriculture (19 hectares), marshy (47 hectares). This increase is because of Srinagar Development Authority’s initiative in 1970s to transform this area into a well planned built-up area by shifting
some of the important government offices and institutions to this area so as to decongestion the city core area. Since, this area is a leveled plain with adequate infrastructure to hold public and private offices and institutions. Moreover, due to the physiographic limitations from the other areas this was the only area left for further expansion of the city. Hence activity is still continuing.

(c) **Actors of Land Transformation in Bemina Ward:**

Government agencies acted both directly as well as indirectly in the process of land transformation in Bemina, followed by the farmers/land owners and residents. Srinagar Development Authority constructed the bypass road and provided the requisite infrastructure. Therefore the area got well connected; as a result people started migrating to this place. Government is also held responsible for selling land to the new settlers for residential purposes. These activities led to the transformation like agricultural to residential, agriculture to governmental and educational land use. Similarly marshy to governmental and educational land transformation took place which resulted into decrease in the fertile agricultural and marshy land.

Farmers/land owners acted indirectly by selling their fertile agricultural land to the residents and new settlers for residential purposes because of two prominent reasons; firstly, the recurrent floods due to low lying area, used to destroy their crops, therefore they left their fields unattended and waited for the appropriate time to sell it off and engaged themselves in some other economic activities. Secondly, the increasing demand and the land value motivated them to sell their land to the new settlers which fetched high economic returns.

New settler played direct role by purchasing agricultural and marshy land from the farmers/land owners and government agencies and transformed that into residential houses. Also some of the economically sound residents from the core area of the city purchased land in this area, in a view that its sale would give good economic returns in the near future. All these activities led to almost complete removal of marshy area and increase in the area under residential land use.

(d) **Issues of Land Transformation in Bemina Ward:**

(i) **Water logging:** Water logging is one of the serious problems at many places in this ward because of being newly developed area. Since, this is a low lying area, also
there was a flood channel running through it in the past, which was converted into the built-up area due to faulty government policies. In addition to it, the Rakh-i-Gandakshah and Rakh-i-Arat marsh in this area used to act as sponges during the floods and heavy rains which was transformed into built-up space. Now, two to three day continuous rains leads to the inundation and flooding situation. This problem is worsening due to increased migration from the core area as well as the neighbouring districts which has put tremendous pressure on its infrastructure.

(ii) Slums and squatters: The government’s policy to develop Bemina into the residential and official area increased its land value. Besides the existing and the migrant poor population, government accommodated economically poor boatmen population (Hanjis) from various water bodies of the city in this area. The increasing land prices restricted this poor population from purchasing land, due to which slums and squatter got developed. These areas have become the breeding ground of various anti social groups like delinquents, drunkards, criminals, etc. Their intermingling with the economically well off people of the same area sometimes lead to conflicts and clashes.
Photo Plate 29: Residential Development in Bemina Ward

Photo Plate 30: Relocated Hanji Settlements in Bemina Ward
6.2.4 SOURA WARD

Soura represents ward number 52 of Srinagar city. It is located on the east bank of Aanchar Lake in the north, about 10 kilometers away from the city center. Soura acts as the north-western end of the city as per the municipal limits. It is the most developed area nearly in the outskirts of the city.

This area got importance because it was the resident place of the former chief minister of the state Late Sheikh Mohammad Abdullah. He carried out various developmental activities in this area. Establishment of medical institute is one such activity which he named after his own local name as Sher-i-Kashmir (Lion of Kashmir) Institute of Medical Sciences (SKIMS). This institute is one of the largest medical institutes of the valley. His aim was to transform Soura into a mini city.

*Janab Sahab Soura* is the Muslim religious place which adds importance to this place. The other important places are Wontabowan, Vicharnag and Aanchar etc.

(a) Demographic Profile of Soura Ward:

In the year 1951 the total population of Soura ward was only 6100 persons, which increase to 22110 persons (provisional) by the year 2011 (Census, 2011). The residents of this area are mostly the migrated people from various parts of the valley and city also.

This ward is dominated by the economically medium class people who are engaged in different government departments especially the SKIMS hospital, educational institutes, charitable institutions and corporate organizations and some are engaged in various private business activities. Out of total resident, only few are the original residents of this area. Majority of the residents belong to the other parts of the Valley who have now permanently settled in this area. Various business activities carried out by the residents include the retail and whole sale trade. Most of them are involved in the Kashmir Arts (Kashmir handloom industry). These residents have maintained the good standards of living.

A small section of economically weak people are also found here who earn their livelihood from various water related activities in Aanchar Lake. They are socio-economically backward people living poor life. Instead of far away location of this ward from the city centre, this ward got rapidly transformed into residential area.
because of growing demand of land for residential use. Table 6.4 shows that this ward has the residential density of 394 persons per hectares of residential area with the availability of 60 sq feet of per head residential floor space which is considerably lower than its neighbouring areas, thereby reflects the developed nature of this area.

Table 6.4: Important Features of Soura Ward

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>TOT_POP</th>
<th>TOT_AREA (in Ha)</th>
<th>TOT_RES (in Ha)</th>
<th>RES DENSITY (per Ha)</th>
<th>POPULATION CONCENTRATION INDEX</th>
<th>RES FLOOR SPACE (Per head)</th>
<th>GROSS RES SPACE</th>
<th>GROSS DENSITY of Dwelling units</th>
<th>STREET CONNECTIVITY INDEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOURA</td>
<td>22110</td>
<td>103</td>
<td>56</td>
<td>394</td>
<td>0.8</td>
<td>60</td>
<td>120</td>
<td>30</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Source: Based on field survey, 2009-10.

Soura is the rapidly growing nodal centre after Lal Chowk in the city because it holds the important government and private offices of the city. Due to the location of important medical institute of the Valley people from all parts of the corners flock this area. The street connectivity index for Soura was observed as 1.1, which is because of the available infrastructure provided by the government.

(b) Land Use/Land Cover of Soura Ward:

Soura ward covers the total area of 103 hectares. Maximum area of the ward is presently occupied by built-up land use which has increased from 10 hectares in the year 1971 to 96.5 hectares in 2008. This ward is primarily dominated by the residential land use. Therefore the area under residential land use increased from 10 hectares in the year 1971 to 56 hectares in 2008, capturing land from agriculture (36 hectares), plantation/orchards (10 hectares).

The political and religious importance of this area led to the development of the infrastructure and due to which people started migrating to this area. Soura is a mini city, with adequate infrastructure, having good market facility including retail as well as the wholesale trade, adequate transportation facilities and road connections with the city centre. It attracted people from the neighbouring district i.e., Ganderbal from north. Also the shifting of economically well off people from the city congested core area i.e., Kawdara and Eidgah most of them are engaged in Kashmir handloom industry. The places where trade is carried out is yet in mixed
character with the residential land use because the political stress from the past number of decades has undermined this industry. However, recently government has planned to promote this household industry/crafts and has proposed the development of Craft Concentration Centres at various locations in this area.

Similarly, significant transformation was observed in agricultural and plantation/orchard land which lost 90 hectares for residential (36 hectares) and other infrastructural (Hospital, 23 hectares) development of this ward. The Kashmir valley is linked to rest of India by only one national highway that too remains in a state of poor condition during winters. People with ailments that are not curable over here have to move outside state for treatments. Therefore keeping in view the weak medical facilities in the valley and Srinagar city in particular, SKIMS medical institute was established which is spread over more than 40 hectares of land area. This institute has strengthened major health centres in the entire State. This hospital facilitated specialized medical care and particularly developed super specialties that provide tertiary health-care and need oriented education in medical sciences and clinical research.

The employs in the hospital cannot commute every day to this place from far areas; therefore they prefer to settle near the place they are employed. However their elders are still at their native places. In some cases it was observed that their elder people sold out their bulk of agricultural land and purchased small agricultural land for residential purposes because of higher land value in this area.

(c) **Actors of Land Transformation in Soura Ward:**
Residents and migrants played direct role in conversion of fertile agricultural land into residential houses. Mostly migrants include the people employed in the SKIMS hospital and other government departments, who belonged to the other parts of the Valley. Moreover, the well off and large families from the core congested areas e.g., Kawdara, Safa Kadal and Rajouri Kadal shifted to this place. This led to the transformation of fertile agricultural land to residential and other built-up land uses. The residents engaged in the water related activities in Aanchar Lake have transformed it into a mess of marsh due to the cultivation of floating gardens (*Radh*) and extraction of various other aquatic foods. However this lake is not located in the municipal jurisdiction.
Government as actor played direct role by offering attractive price to the farmers for exchange of their land. On this land hospital (SKIMS) was established which covers more than 40 hectares of land area. This led to the transformation of agricultural land to hospital land use.

(d) Issues of Land Transformation in Soura Ward:

(i) High land value: The concentration of population in this ward or the so called emerging nodal centre with the available infrastructures has put an economic shadowing effect on its neighbouring wards Nowshera, Zoonimar and Buchpora and has adversely affected the land value of the ward. This has increased the gap between the demand and supply of land supported by the speculative nature from developers and property dealers in the land market resulting the increase in land value. Such price hike has always favoured the property dealers only.

(ii) Degradation of lake environs: The ecology of this area has got disturbed because of the removal of plantation in lake environs, which used to shield it. Moreover, the lake used to have a marine effect on the local climate of this area which is not there now due to its conversion into marshy area. This lake used to be a fresh water lake in the past where large number of people were involved in the extraction of various aquatic foods which has considerably decreased now.
Photo Plate 31: Deteriorated View of Aanchar Lake

Photo Plate 32: Aerial View of Soura Ward
6.2.5 **CHANPORA WARD**

Chanpora represents ward number 10 of Srinagar city. It is a low lying area in the south at a distance of about 10 kilometers from the city center. Chanpora got its name from two words “Chan” locally meaning ‘Carpenter’ and “Pora” means the ‘place to live’. This area was earlier inhabited by the skilled carpenter community of the city although in smaller number. Till 1970s this area was having weak road connectivity until the construction of bypass road in its south. Besides agricultural activities, its residents were also engaged in carpentry in the past.

Chanpora got importance because it leads to the important tourist place called *Yusmarg* and the important Muslim religious place called *Chrar-i-Shareef*. It also leads to the famous *Doodh Ganga River* in the south. The prominent places in Chanpora ward are *Khan Mohalla, Gulshan Nagar, Methan, Housing colony Chanpora, Maisuma colony* (relocated fire victims of Maisuma area of Lal Chowk ward). Also Kashmiri Hindu people (locally called as *Pandits*) used to live here before they permanently migrated to the other states.

**(a) Demographic Profile of Chanpora Ward:**

In the year 1951 the total population of Chanpora ward was 7024 persons which increased to 35648 persons in 2011 (provisional).

This ward is dominated by economically middle class people who are working in various government departments in the city core area and some are carrying out their private retail business activities. Few residents are engaged in the agricultural activities. Also few economically well off people are also found here who include the residents who are working as high government officials and emerging entrepreneurs. Many of upper class businessmen have their business establishments in the city centre and are the daily commuters to that place.

This area has a good scope for market development; therefore entrepreneurs mostly from the other parts of the city and few from this area also have initiated the establishment of various shopping complexes, malls and few private hospitals in this area. This shows the inclination of people towards the modern society.
### Table 6.5: Important Features of Chanpora Ward

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>TOT_POP</th>
<th>TOT_AREA (in Ha)</th>
<th>TOT_RES (in Ha)</th>
<th>RES DENSITY (per Ha)</th>
<th>POPULATION CONCENTRATION INDEX</th>
<th>RES FLOOR SPACE (Per head)</th>
<th>GROSS RES SPACE</th>
<th>GROSS DENSITY of Dwelling units</th>
<th>STREET CONNECTIVITY INDEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHANPORA</td>
<td>35648</td>
<td>96</td>
<td>65</td>
<td>544</td>
<td>0.9</td>
<td>57</td>
<td>114</td>
<td>35</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Source: Based on field survey, 2009-10.

Chanpora ward is among the densely populated areas, mostly due to in-migration of people from various parts of the city. Therefore has the residential density of 544 persons per hectares of residential area with the population concentration index of 0.9 (Table 5). Due to the ongoing economic development in the form of establishments of various hospitals and shopping malls and complexes, population concentration is increasing rapidly. Chanpora has per head residential floor space of 57 sq feet, therefore has the scope for both residential as well as commercial development.

Chanpora leads to the important places in the south of the valley. Thus, it has the street connectivity index of 0.8, which is among the highest figures of this index.

**b) Land Use/Land Cover of Chanpora Ward:**

Chanpora is one of the smallest wards of Srinagar city covering the total area of 96 hectares. The increasing population and the proportionate demand of land for residential purposes led to the large scale land transformations in this ward. This ward is primarily the residential area. Therefore the total area under residential land use increased from 2 hectares in the year 1971 to 65.5 hectares in 2008, capturing land from agriculture (49.5 hectares) and vacant (14 hectares). The available land for residential development attracted people to from various parts of the city and outside to migrate to this area. In-migration of people was mainly observed from the neighbouring districts; hence these rural people got a chance to live in the city since the urban authorities have provided good infrastructure in this area. This in-migration was also driven due to the key location of this ward. This area connects the capital city Srinagar with the important religious and tourist destinations of district Chadora, Yusmarg and Pulwama. Also people from the overcrowded city
core area i.e., Mander Bagh, Gao Kadal, Maisuma, Ganpatyar, Wazir Bagh etc., shifted to this area.

The agricultural and vacant land which belonged to government was divided into average size plots by J&K Housing Board and sold it at average price to the people for filling the lag of housing in the city. Later, this department established a housing colony which was the second residential colony in Srinagar city after Jawahar Nagar housing colony in the core area.

Due to large scale in-migration of people agricultural land observed significant land transformation during the study period. This land use class has decreased from 68.5 hectares in the year 1971 to 12 hectares in 2008, losing its land to residential (49.5 hectares) and plantation/orchards (10 hectares). Farmers and land owners sold their land to the new settlers mainly because of getting instant money. Also the low productivity of agriculture and risk of floods motivated them to sell their field or shift the traditional crop cultivation to horticulture activities. The economic transformation led to the shifts from primary sector to service sector activities. Thus gave an urban look to this area where people were living a rural life instead of residing within the city limits.

Similarly as in Aalochi Bagh, Pandits (Local name for Kashmiri Hindu people) evacuated this area because of the political disturbance in the state. They left their property with their Muslim residents as guardians. This property was later sold by these Pandits through property dealers and residents to the new settlers and also the entrepreneurs from city core area purchased it and kept it as speculative property. Due to its far away location from the city centre and the residential nature of the area this property could not get transformed into commercial buildings. Now these entrepreneurs are converting these traditional and old residential structures into modern built-up spaces like hospitals, shopping centres because of the demand for such infrastructure in this area.

(c) Actors of Land Transformation in Chanpora Ward:
Farmers acted indirectly by selling their fertile agricultural land to the new settlers & government agencies for residential, governmental and commercial development of the area. Many farmers transformed their agricultural land into orchards for increasing their income. Due to lack of awareness and accessibility towards the new
agricultural technological inputs the production was low. Therefore they converted their agricultural land into plantation/orchards which gave them desired income returns. Also the risk of floods compelled them to either convert the fields into orchards or to sell it or kept it unattended in a view to sell it at good price at the appropriate time. This resulted into decrease in the area under agriculture and plantation/orchards.

Residents on the other hand acted directly by building residential houses on vacant and agricultural land. The increasing family size of the residents and immigrants of this area demanded more residential space.

Government acted indirectly by selling the fertile agricultural land in the form of small plots to the new settlers and the residents for residential purposes. This led to transformation of agricultural land to residential land use.

(d) Issues of Land Transformation in Chanpora Ward:

(i) Social problems: The aboriginal population sold their agricultural land merely for getting instant money and also due to the scarcity of government jobs their younger generations got unemployed. However, few could manage to engage in the government services, but they work in the similar way the traditional labour or artisan do. There is poor social mobility among the migrant population of Chanpora ward because most of them have migrated to the city due to employment opportunities. Therefore they sold their bulk of agricultural land and settle permanently in this area. Orchard owners who sold their farms lost their social identity in the horticulture market which is an important sector of the city’s economy.

(ii) Flood problem: Chanpora is the low lying area with the flood spill channel of river Jhelum running through it. Every year floods has become a permanent threat to the crops and the property.

6.2.6 Hanji Localities
A boat man of Kashmir is known as Ha’enz in local language and Hanji in Hindi script. He is also called by different names like Kishtiban (Boatman) and Jalbashi (Water-dweller) etc. Hanjis are among the aboriginal inhabitants of Kashmir Valley
as per ‘Rajatarangani’, (the first historical record written by Pandit Kalhana in about 826 AD).

They are residing in and around the low lying areas of the water bodies of Kashmir Valley. When the water level of the lake goes up, these localities get flooded. Their maximum concentration is in Dal Lake and its environs, living in different localities, which are locally called as Mohallas (Figure 6.2). Earlier these localities were confined to the western bank of the Dal Lake, but presently they are found in the interior of the lake also. There are about 50 localities/Mohallas in the western and central part of the Dal Lake (ward number 58 and 59 of Srinagar city). Some of the important localities in western and south western parts i.e., Dal Gate and Gagribal area of the lake are Kohn Khan, Mir Mohalla, Abi Kakpora, Dar Mohalla, Gaddi Mohalla, Bata Pora Khurd, Bagwan Mohalla, Khar Mohalla, Jaffer Mohalla, Bujal Mohalla, Gogal Mohalla, Bakir Mohalla, Nishat, Shalimar, Doji Mohalla, Gaad Hanz Mohalla, Hazratbal and Taki Lal Shah. These localities are having high concentration of Hanjis. Their form, structure and size vary from one locality to the other.

(a) Demographic Profile of Hanjis:
According to 1951 estimates of Srinagar Municipal Corporation, total Hanji population in Dal Lake was 21500 The Census of India 2001 presented the total population living in and around the lake peripherals as more than 1.5 lakh. As per 2011 census there are 57500 people living in different localities in Dal Lake and its environs.

Hanji localities are dominated by the economically weak people who include the vegetable growers, sellers, cultivators, fishermen, boat paddlers, wood cutters and labourers. Besides dominant economically weak people, there are few localities of economically moderate people and they are engaged in the tourism related activities. These people include carpet weavers, shawl makers, embroidery,
LOCATION OF HANJI MOHALLAS/LOCALITIES

Figure 6.2
needle workers, carpenters, shopkeepers, tailors, blacksmiths, houseboats services, motorboat drivers, shikara walas, tourist guides, and restaurant owners etc.

About 7500 Hanjis live within the houseboats and 50,000 people in the hamlets. There are more than 775 houseboats, about 400 Dunga boats, 4210 Pucca house and 3493 huts in Hanji localities. They have very limited agricultural land holding and most of the land is in the form of open water, especially for the fishermen who have no land for agriculture purposes.

On the basis of different economic activities, Hanjis have been categorized into eight types and they are Demb Ha’enz, Gari Ha’enz, Dunga Ha’enz, Ma’er Ha’enz, Gaad Ha’enz, Haka Ha’enz, Shikara Ha’enz and Houseboat Ha’enz.

Table 6.6: Important Features of Hanji Localities

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>TOT_POP</th>
<th>TOT_AREA (in Ha)</th>
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<th>RES FLOOR SPACE (Per head)</th>
<th>GROSS RES SPACE</th>
<th>GROSS DENSITY of Dwelling units</th>
<th>STREET CONNECTIVITY INDEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>HANJI LOCALITIES</td>
<td>50518</td>
<td>782</td>
<td>65</td>
<td>771</td>
<td>1</td>
<td>25</td>
<td>55</td>
<td>39</td>
<td>---</td>
</tr>
</tbody>
</table>

Source: Based on field survey, 2009-10.

The rapidly increasing Hanji population has widened the gap between demand and supply ends of the land market. Table 6.6 shows that 65 hectares of residential area is shared by 50518 people. It refers to the residential density of 777 persons per hectare with the population concentration index of 1. Since, the economy of Hanjis is dependent primarily on agriculture and tourist related activities. These localities have become the busy places of the city. People from various part of the valley are by one way or the other linked with this community. These localities are well connected by the water ways rather than the roadways.

These Hanjis are living in the densely constructed small hamlets and houses with their large family size, because of the limited availability of land. So there is only 25 sq feet availability of per head residential floor space which is the lowest share in the city.
(b) Land Use/Land Cover of Hanji Localities:
Hanji localities are spread over the total area of 899.5 hectares. The growing number of Hanjis has led to the increase in the area under residential land use and hence it has increased from 5.5 hectares in the year 1971 to 53 hectares in 2008, gaining land mainly from marshy (47.5 hectares). Hanjis have illegally encroached the lake waters, which has lead to decrease in the area under marshy and the adjoining lake area. In order to demarcate their land ownership which is practically illegal, Hanjis have planted willow trees at many locations in their localities. The localities which emerged during the study period in the middle part of the lake are Bujal Mohalla, Gogal Mohalla, Bakir Mohalla etc.

Another important land transformation during the study period (1971-2008) was observed in marshy land which lost 602.5 hectares to agriculture (591 hectares), residential (47.5 hectares) and plantation/orchards (13 hectares). This increase is attributed to the transformation of marshy area and water body into agricultural land and floating gardens (Radh) by vegetable grower section of Hanjis in and around their localities as this is the only source of their livelihood. Every year vegetables worth nearly 35 crores of rupees are being cultivated and supplied to nearly half of the Srinagar city by Hanjis. Despite their property rights over 300 hectares of agricultural land and 670 hectares of water area, they have illegally encroached the lake area. They can carry out any activity which would benefit them.

Significant area of the Dal Lake has been transformed into various land uses by Hanjis. They gradually transformed the adjoining lake waters into land area in different sequential stages, initiating from transformation of water to marshy area, followed by marshy to floating gardens and finally to the land.

Although, this practice among Hanjis has a long history but the rate of transformation has rapidly increased with the increase in their numbers from the past number of decades. Various nitrogen and phosphorous effluents discharged from the floating gardens, houseboats, hamlets, hotels and the restaurants are being directly dumped into the lake. These nutrients lead to the speedy growth of weeds which have transformed the lake water into marshy area.

Despite modern technological and educational development, Hanjis are having the traditional way of living and have remained one of the backward
communities of Kashmir throughout the history which has directly influenced the land use of their localities and their environs.

(c) Actors of Land Transformation in Hanji Localities:
Hanjis played direct role in land transformation in and around their localities. Because of their increasing number, the demand for land increased. Therefore they converted the water and marshy area into land area for residential purposes. Moreover, they transformed marshy area into plantation by planting of willow and poplar trees in the marshy areas. Demb Ha’enz are the main culprits of land transformation, who are involved in primary agricultural activities or the cultivation of floating gardens (Radh). Since, they have a poor socio-economic base and they churn out their modest income from agricultural activities.

Government agencies played an indirect role in the process of land transformation. Government has itself facilitated the movement of people inside the lake by constructing concrete roads such as one connecting Durganag temple near Kohn Khan in the west of the lake. The authorities are incompetent in checking the illegal encroachment by Hanjis because these people are having strong ties with the political groups of the state.

(d) Issue of Land Transformation in Hanji Localities:
The increase in the Hanji population has become the source of number of problems. The major threat from this community is on the ecology of the Dal Lake and also on the area they are residing in. Some of the important issues aroused from the land transformation in these localities are discussed below:

(i) Residential congestion: The houses of Hanjis are shared by more than one family and the increasing family size has led to residential congestion. They filled up the water channels for residential purposes. These channels were used for navigation purposes and also used to circulate the lake water with the other important water bodies of the city. The left out narrow lanes without street lighting have degraded the living condition in these localities.

(ii) Rise in the influx of nutrients: Hanjis filled the adjoining water area and transformed it into floating/vegetable gardens (Radh). Moreover, the discharge of sewerage from their localities which is rich in nitrogen and phosphorus content, acts
as a fertilizer for the weeds in the lake. This has resulted in an explosive growth of duckweed, water ferns, and algae thereby choking of the Dal waters prominently in the south where concentration of Hanjis is high.

(iii) Increasing number of tourists: Tourists prefer to stay in the houseboats and hotels in Hanji localities. Their increasing number leads to increase in the waste generation which is directly dumped into the lake.

(iv) Breach in law and order: Government authorities carried out various court rulings for the relocation of Hanjis in order to rehabilitate the lake. This resulted into clashes between Hanjis and the authorities because they were not provided the appropriate substitutes of livelihood after relocation. Moreover, the residential congestion in Hanji localities leads to everyday clashes. There are quarrels and clashes among them related to the issues like, residential space, growing number of delinquency, drunkards, stealing of the floating gardens and so on. Sometimes, clashes related to the stealing of floating gardens leads to the loss of life and property.
Photo Plate 33: Houseboats in Dal Lake

Photo Plate 34: Hanji Settlements in Dal Lake
Photo Plate 35: Hanji Locality in Dal Lake

Photo Plate 36: Floating Gardens (*Radh*) in Dal Lake